

## WHAT IS CLAIMED IS:

1. A method of displaying unknown words of a digital article comprising:

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a) comparing the digital article with a vocabulary database to find unknown words in the digital article, wherein the vocabulary database is chosen from a known-vocabulary database, an unknown-vocabulary database, or a combined vocabulary database with a known-vocabulary database and an unknown-vocabulary database; and

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b) marking found unknown word(s) so that a reader knows where unknown words(s) are in the digital article.

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2. The method according to claim 1 wherein the step of marking found unknown word(s) is to add an underline under found unknown word(s).

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3. The method according to claim 1 further comprising an amending step to change a known word to an unknown word of the digital article and vice versa, wherein the amending step will further update the vocabulary database.

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4. The method according to claim 1 further comprising a combining step to display found unknown word(s) together as an unknown-vocabulary area.

5. The method of displaying unknown words of a digital article comprising:

5 a) comparing the digital article with a vocabulary database to find unknown word(s) in the digital article, wherein the vocabulary database is chosen from a known-vocabulary database, an unknown-vocabulary database, or a combined vocabulary database with a known-vocabulary database and an unknown-vocabulary database; and

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b) displaying found unknown word(s) together as an unknown-vocabulary area.

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6. The method according to claim 5 further comprising a marking step to mark found unknown word(s) so that a reader can know where unknown word(s) are in the digital article.

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7. The method according to claim 5 further comprising an amending step to change a known word to an unknown word of the digital article and vice versa, wherein the amending step will further update the vocabulary database.

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8. An article of manufacture comprising a computer-readable medium bearing a program code embodied therein for use in an electronic apparatus which is able to display digital articles, the article of manufacture comprising:

a first computer-readable program segment encoded on the computer-readable medium for comparing the digital article with a

vocabulary database to find unknown word(s) in the digital article, wherein the vocabulary database is chosen from a known-vocabulary database, an unknown-vocabulary database, or a combined vocabulary database with a known-vocabulary database and an unknown-vocabulary database; and

a second computer-readable program segment encoded on the computer-readable medium for marking found unknown word(s) so that a reader knows where unknown-word(s) are in the digital article.

9. The article of manufacture according to claim 8 further comprising a third computer-readable program segment encoded on the computer-readable medium for changing a known word to an unknown word of the digital article and vice versa, and also updating the vocabulary database.

10. The article of manufacture according to claim 8 further comprising a fourth computer-readable program segment encoded on the computer-readable medium for displaying found unknown word(s) together.

11. The article of manufacture comprising a computer-readable medium bearing a program code embodied therein for use in an electronic apparatus which is able to display digital articles, the article of manufacture comprising:  
a first computer-readable program segment encoded on the computer-readable medium for comparing the digital article with a vocabulary database to find unknown word(s) in the digital

article, wherein the vocabulary database is chosen from a known-vocabulary database, an unknown-vocabulary database, or a combined vocabulary database with a known-vocabulary database and an unknown-vocabulary database; and

a second computer-readable program segment encoded on the computer-readable medium for displaying found unknown-word(s) together.

12. The article of manufacture according to claim 11 further comprising a third computer-readable program segment encoded on the computer-readable medium for changing a known word to an unknown word of the digital article and vice versa, and also updating the vocabulary database.
13. The article of manufacture according to claim 11 further comprising a fourth computer-readable program segment encoded on the computer-readable medium for marking found unknown word(s) so that a reader knows where unknown word(s) are in the digital article.
14. An electronic apparatus able to display a digital article and find unknown-word(s) in the digital article, the electronic apparatus comprising:
- a display device;
  - a storage device; and
  - a processor connected to the storage device;
- the storage device storing:

a program for controlling the processor; and  
a vocabulary database, wherein the vocabulary database is  
chosen from a known-vocabulary database, an unknown-  
vocabulary database, or a combined vocabulary database with  
5 a known-vocabulary database and an unknown-vocabulary  
database; and

the processor operative with the program to:  
compare the digital article with a vocabulary database to find  
10 unknown word(s) of the digital article; and  
mark found unknown word(s) so that a reader knows where  
unknown word(s) are in the digital article.

15. The electronic apparatus according to claim 14 in which the  
15 processor is further operative with the program to change a  
known word to an unknown word of the digital article and  
vice versa, and also update the vocabulary database.

16. The electronic apparatus according to claim 14 in which the  
processor is further operative with the program to display  
20 found unknown word(s) together on the displaying device.

17. An electronic apparatus able to display a digital article and  
find unknown word(s) in the digital article, the electronic  
apparatus comprising:  
a displaying device;  
25 a storage device;  
a processor connected to the storage device;

the storage device storing  
a program for controlling the processor, and  
a vocabulary database, wherein the vocabulary database is  
5 chosen from a known-vocabulary database, an unknown-  
vocabulary database, or a combined vocabulary database with  
a known-vocabulary database and an unknown-vocabulary  
database; and

10 the processor operative with the program to  
compare the digital article with a vocabulary database to find  
unknown word(s) in the digital article; and  
display found unknown word(s) together on the displaying  
device.

15 18. The electronic apparatus according to claim 17 in which the  
processor is further operative with the program to change a  
known word to an unknown word of the digital article and  
vice versa, and also update the vocabulary database.

20 19. The electronic apparatus according to claim 17 in which the  
processor is further operative with the program to mark found  
unknown word(s) so that a reader knows where unknown  
word(s) are in the digital article.